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RECEIVED BEFORE THE ARIZONA CORPORATION COMMISSION *30*€ 1 **COMMISSIONERS** 2007 MAR 21 P 1: 44 MIKE GLEASON, Chairman AZ CORP COMMISSION WILLIAM A. MUNDELL DACUMENT CONTROL JEFF HATCH-MILLER KRISTIN K. MAYES GARY PIERCE IN THE MATTER OF THE APPLICATION OF DOCKET NO. E-01345A-05-0816 ARIZONA PUBLIC SERVICE COMPANY FOR A HEARING TO DETERMINE THE FAIR VALUE OF THE UTILITY PROPERTY OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN, AND TO AMEND DECISION NO. 67744. 11 IN THE MATTER OF THE INQUIRY INTO THE DOCKET NO. E-01345A-05-0826 12 FREQUENCY OF UNPLANNED OUTAGES DURING 2005 AT PALO VERDE NUCLEAR GENERATING STATION, THE CAUSES OF THE 13 OUTAGES, THE PROCUREMENT OF REPLACEMENT POWER AND THE IMPACT OF THE OUTAGES ON ARIZONA PUBLIC 15 SERVICE COMPANY'S CUSTOMERS. IN THE MATTER OF THE AUDIT OF THE FUEL DOCKET NO. E-01345A-05-0827 AND PURCHASED POWER PRACTICES AND 17 COSTS OF THE ARIZONA PUBLIC SERVICE COMPANY. 18 STAFF'S NOTICE OF FILING 19 20 Arizona Corporation Commission Staff ("Staff") hereby provides the late-filed exhibit of Staff witness Prem Bahl. The purpose of this exhibit is to provide the additional information that was 21 22 requested during the hearing in this matter. 23 RESPECTFULLY SUBMITTED this 21st day of March, 2007. 24 Arizona Corporation Commission 25 Christopher C. Kempley, Chief Counsel DOCKETED Jamet Wagner, Senior Staff Counsel 26 Charles Hains, Attorney MAR 21 2007 Arizona Corporation Commission 27 1200 West Washington Street Phoenix, Arizona 85007 DOCKETED BY 28

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Staff's Response to Commissioner Mayes' Questions on the APS Quality of Service at the APS Rate Case Hearing Docket No. E-01345A-05-0816

- Q. Page 5 of Staff Report: "How do we know whether the security measures that APS is employing today are representative of the best practices in the utility industry for security? And has this been benchmarked against, for instance, the type of security that SRP provides?
- A. Arizona Public Service Company's approach to substation security follows the guidelines set forth by the North American Electric Reliability Councils, Physical Security for Substations, effective October 15, 2004. Physical security for APS's critical substations is comprised of: Deterrence, Detection, Assessment, Communication and Response through the use of access control, CCTV and intrusion detection systems monitored at a Central Alarm Station. In October of 2003 and March of 2006 Triton Security Solutions (an outside consultant for Edison Electric Institute) was hired by APS to complete assessments of the APS Security Program and states, "The security plan to protect critical substations is judged to be best in class". According to APS, a copy of the Executive Summary of the confidential Triton report was provided to the ACC Commissioners in April 2006 as follow up to a question in the Emergency Rate Case.

APS and SRP have practically identical security measures at their respective facilities. The two utilities have a joint ownership in several major power plants and substations, for example Palo Verde, Four Corners, Navajo, Westwing, etc.

- Q. Page 3864 of the 11/30/06 transcript: <u>Cameron Feeder #1</u> APS will continue to work with the City of Page and AMPUA to explore and study the issue of whether the replacement of the existing manual switch on the 69 kV circuit breaker at the Powell substation would affect their system. What is the status of that?
- A. As noted in APS' response to data request JDS 2-1, the City of Page has not yet agreed to the installation of a 69 kv circuit breaker at Powell Substation ("WAPA"), to replace an existing manual switch. The City of Page asked the Arizona Municipal Power Users Association ("AMPUA") to study APS' request in order to determine if the change will be detrimental to their system and that study was completed in December 2006. As a result of the study the City of Page has expressed concern with possible impacts to Page Electric Utility ("PUE"). APS has requested a meeting with the City of Page to discuss their concerns and will continue to work with the City of Page, AMPUA and WAPA to explore this opportunity.
- Q. Page 6 of Staff Report: To what extent has APS implemented the fifteen EPRI Solutions ("EPRI") recommendations?
- A. APS filed its report with the Commission on February 28, 2006 regarding implementation of the EPRI recommendations. The report documents the following in terms of APS' implementation of these recommendations. APS expects to file an updated report by the end of February 2007.

Recommendation No. 1 (Protective Relays) – APS has implemented this recommendation, and is expanding the protection scheme upgrades to other substations through 2010.

Recommendation No. 2 (Communication) – Recommendation was implemented.

Recommendation No. 3 (Post Event Action and Planning) – This recommendation was implemented. According to APS, results of a self-check in mid-2006 will be filed with the Commission in February 2007.

Recommendation No. 4 (Bushings) – APS replaced several Type U Bushings, per this recommendation in 2005. This will be an on-going program in the next seven years.

Recommendation No. 5 (Industry Standard Diagnostics) – APS has acquired additional Industry Standard Practices Diagnostic Tools, and has begun training its staff in utilizing these tools. This training will continue for the next several years.

Recommendation No. 6 (Maintenance Basis and Discipline) – Working with EPRI, APS has developed additional maintenance templates for transmission and substation components not previously addressed. Full implementation of the Maintenance Basis was expected to be completed by the end of 2006. APS expects to address this issue in its report that will be filed in February 2007.

Recommendation No. 7 (Work Prioritization and Backlog Management) – APS has implemented this recommendation.

Recommendation No. 8 (Equipment Maintenance Procedure) – EPRI recommended improvements to APS' maintenance procedures, and APS was in the process of incorporating those recommendations into its electronic Work Management System, and planning to complete this integration by the end of 2006. APS' forthcoming report in February 2007 will confirm to what extent APS has completed such integration.

Recommendation No. 9 (Data Automation and Maintenance Intelligence) – Implementation of this recommendation was started in 2005 and was planned to be completed by the end of 2006. APS' forthcoming report in February 2007 will confirm to what extent APS has implemented this recommendation.

Recommendation No. 10 (Planning, Scheduling and Outage Coordination) – APS is continuing to work with EPRI and seeking its assessment of the Company's work control processes, including emerging and sponsored work, active and completed work orders ("WO"), and WO close out to identify process gaps.

Recommendation No. 11 (Productivity, Planning, and Scheduling Metrics) – Implementation of this recommendation was initiated in 2005 and its completion was anticipated by the end of 2006. APS' forthcoming report in February 2007 will confirm to what extent APS has implemented this recommendation.

Recommendation No. 12 (Ownership, Roles, and Responsibility) – This recommendation has been implemented.

Recommendation No. 13 (Staffing Level, Resource Availability, and Overtime Use) – APS has filled all the recommended staffing positions. Additional staffing positions were to be evaluated in the first half of 2006. APS' forthcoming report in February 2007 will provide the results of this evaluation.

Recommendation No. 14 (Periodic and On-Line Monitoring) – APS has initiated implementation of this recommendation for all new transformers that are 230 kV and above. The Company will be installing on-line oil monitors for existing 230 kV and above transformers over the next 3-5 years.

Recommendation No. 15 (Training) — Whereas APS has implemented this recommendation, the Company will continue to document skill-set gaps and develop training material. APS' forthcoming report in February 2007 will provide the results of this effort.

- Q. Page 7 of Staff Report Was the damaged 230 kV transformer at the Deer Valley Substation replaced free of charge?
- A. Yes, it was.
- Q. Page 3855 of the Transcripts, Line 8 When did APS install the electronic fault locators?
- A. The electronic fault locators were installed in April 2005.
- Q. Exhibit S-27: What is the status of APS' interactions with ED-3?
- A. As noted in APS' response to data request JDS 2-1 "All outages in 2005 were due to the loss of the ED-3 source to the Caywood Substation." It should be noted that the reliability performance of this circuit, as well as the feeders originating out of Papago Substation, were better than the established reliability threshold in the original October 2005 report. Outages during 2005 moved these feeders into the category of action required. In July, 2006 APS approached ED-3 with APS outage information. ED-3 has recently provided additional information in the attached letter (Exhibit A) sent to APS.
- Q. Exhibit S-27 (APS' data response regarding improvements to facilities serving tribal territories): When were the improvements to the line serving the Hopis completed?
- A. There were three actions identified in APS' "Reliability Review of Electric Service to Tribal Territories" report filed by APS in October 2005 regarding service to the Hopis.
 - Fault locators, like those that have been installed on the Cholla Keams Canyon line, will be installed on both lines in 2005 in order to determine the location and cause of each outage. Status: Fault locator installation was completed in December of 2005.

- APS will be installing capacitor banks at the Tuba City substation in 2006, to improve voltage on the Black Mesa Tuba City line. <u>Status</u>: The capacitor bank installation was completed in December 2006.
- APS has been in negotiations with WAPA/City of Page to replace the existing manual switch at Powell Substation with a circuit breaker. <u>Status</u>: Please see the above response to the second question.

ATTACHMENT A



41630 W. LOUIS JOHNSON DRIVE MARICOPA, AZ 85239

Office (520) 424-9021 * Fax (520) 424-9065

December 19, 2006

Ms. Evelyn Casuga Arizona Public Service Company 50 N. Brown Avenue Casa Grande, AZ 85222

RE: APS Tribal Lands Reliability Report (Caywood and Papago Substations)

Dear Evelyn:

Included below is additional information to Jack Rowland's memo (email attached) that hopefully is helpful in answering the information you requested.

69KV TRANSMISSION UPGRADES

In order to create more reliability and redundancy in the service ED3 provides to its customers, ED3 is currently constructing and rebuilding a 31 mile loop (vs. radial feed) of new and existing 69 kV lines. The loop will go north from the Maricopa Substation to Talla and Sonny Dunn Substations, west to Maricopa West Substation, south to Hidden Valley Substation, east to the Peters and Nall substation, and then continuing east back to the Maricopa Substation. Two of the substations tied into the loop are new and will be served from the new 69 kV loop. One of the two new substations, Maricopa West (South of UPRR and east of Green Road), is on line, and Peters and Nall (Peters and Nall and Green Road) will be on line by the peak of 2007.

RELIABILITY PATROLS

ED3 69 kV line patrols are a part of ED3's routine Operations and Maintenance. The District uses Active G (maintenance work order software) to create works orders so that poles are replaced or repaired as needed. The District inspects the equipment for dry rot, cracked or split poles, damaged cross arms, insulators, removal of vegetation, and taut hardware. Early in 2006, a mile of 69 kV poles was replaced for the Sonny Dunn (Papago) Substation as part of ED3's routine patrol maintenance plan as well as several distribution poles and wires throughout the District.

Ms. Evelyn Casuga Arizona Public Service December 19, 2006 Page 2

2006 69 KV OUTAGES

During a late summer storm, the District lost Wingfield, Caywood and Sexton Substations due to a micro burst where the District lost over 2 miles of 69 kV line causing 2 outages totaling 8 hours. Sonny Dunn Substation 69 kV line has operated without disturbance except for a Western Area Power Administration inadvertent trip of Maricopa 69 kV bus on March 2, 2006, with a restoration time of 22 minutes. In November, due to copper theft (thieves took almost 1,000 feet of wire that was up on the poles), the District had to replace almost 1 mile of overhead line which affected the Caywood Substation. APS and ED3 each had an outage on the same circuit later in November on the same date where they lost lines due to high winds. Each of these two outages lasted approximately 30 minutes.

If you have any additional questions, please contact me at (520) 424-9021.

Sincerely,

Grant R. Ward

GRW/nam Attachment

c: Joseph Herrera

Grant Ward

From: Evelyn.Casuga@aps.com

Sent: Friday, December 08, 2006 5:00 PM

To: Grant Ward

Cc: Jack.Rowland@aps.com

Subject: APS Tribal Lands Reliability Report (Caywood and Papago Substations)

Grant.

Thank you for taking a look at this. Please let us know if Jack's comments below capture your efforts and, as we discussed, if you could also provide a statement on ongoing reliability patrols for the same area as well as any appropriate outage analysis. As we're all still tied at the hip, I appreciate your help! Evelyn

From Jack:

Caywood Substation serves one non-indian customer on the reservation and it is for service to El Paso natural gas line cathodic protection.

Service to the Ak Chin Industrial Park at times is out of Papago substation and this is a radial substation. The Ak Chin Community has been served out of Papago substation in the past. ED 3 has added Talla and Maricopa Substations and APS does not know for sure how the ED 3 substations and feeders are arranged.

Service reliability to the Ak Chin Community on Farrell Rd will be increased when a new feeder is built in 2007 from the new ED 3 substation of "Maricopa West". Ak Chin will have an express feeder from the new substation south into the Community. ED 3 is building a 69 kV loop from Maricopa substation to Talla to Maricopa West to Hidden Valley and then back to Maricopa substation and this line is under construction at this time. There is also a new substation proposed at the south side of the reservation that will provide an additional source to the Community.

Service to the Ak Chin farm headquarters is served out of Maricopa Substation.

Email Firewall made the following annotations

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